



PTO/SB/08A (10-01)

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Substitute for form 1449A/PTO				<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (use as many sheets as necessary)				Application Number	10/662,914
				Filing Date	September 15, 2003
				First Named Inventor	Lei et al.
				Art Unit	1652
				Examiner Name	Rebecca E. Prouty
Sheet	1	of	4	Attorney Docket Number	19603/4261 (CRF D-2895A)

U.S. PATENT DOCUMENTS					
Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	U.S. Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup> (if known)			
[Signature]	1	US-2002/0068350 A1	06/06/2002	Kondo et al.	
	2	US-2002/0102692 A1	08/01/2002	Lei	
	3	US-2002/0127218 A1	09/12/2002	Svensen et al.	
	4	US-2002/0136754 A1	09/26/2002	Short et al.	
	5	US-2003/0092155 A1	05/15/2003	Kostrewa et al.	
	6	US-5,436,156	07/25/1995	Van Gorcom et al.	
	7	US-5,443,979	08/22/1995	Vanderbeke et al.	
	8	US-5,593,963	01/14/1997	Van Ooijen et al.	
	9	US-5,780,292	07/14/1998	Nevalainen et al.	
	10	US-5,834,286	11/10/1998	Nevalainen et al.	
	11	US-5,863,533	01/26/1999	Van Gorcom et al.	
	12	US-6,309,870	10/30/2001	Kondo et al.	
	13	US-6,350,602	02/26/2002	Van Gorcom et al.	
	14	US-6,391,605	05/21/2002	Kostrewa et al.	
	15	US-6,514,495	02/04/2003	Svensen et al.	
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FOREIGN PATENT DOCUMENTS							
Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>4</sup>
		Country Code <sup>3</sup>	Number <sup>4</sup> Kind Code <sup>2</sup> (if known)				
[Signature]	16	EP	0 420 358 B1	05/12/1999	Van Gorcom et al.		
	17	EP	0 684 313 A2	11/29/1995	Van Loon et al.		
	18	JP	10-276789	10/20/1998	Kosutoriwa et al.		X
	19	JP	2001-292789	10/23/2001	Van Loon et al.		X
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	21	WO	00/43503	07/27/2000	Lehmann		
	22	WO	86/01179	02/27/1986	Conti		
	23	WO	91/05053	04/18/1991	Van Gorcom et al.		
	24	WO	99/49022	09/30/1999	Svensen		
Examiner Signature	[Signature]			Date Considered	6/29/06		

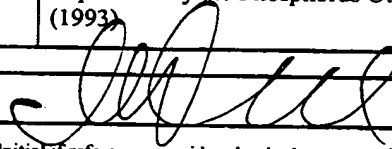
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				Group Art Unit	1652
				Examiner Name	Rebecca E. Prouty
Sheet	2	of	4	Attorney Docket Number	19603/4261 (CRF D-2895A)

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials <sup>*</sup>	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
✓	25	GenBank Accession No. AAB96872 (January 16, 1998)	
	26	GenBank Accession No. M94550 (April 27, 1993)	
	27	GenBank Accession No. P34752 (January 25, 2005)	
	28	Han et al., "Expression of an <i>Aspergillus niger</i> Phytase Gene ( <i>phyA</i> ) in <i>Saccharomyces cerevisiae</i> ," <i>Appl. Environ. Microbiol.</i> 65(5):1915-1918 (1999)	
	29	Han et al., "Role of Glycosylation in the Functional Expression of an <i>Aspergillus niger</i> Phytase ( <i>phyA</i> ) in <i>Pichia pastoris</i> ," <i>Arch. Biochem. Biophys.</i> 364:83-90 (1999)	
	30	Kostrewa et al., "Crystal Structure of <i>Aspergillus niger</i> pH 2.5 Acid Phosphatase at 2.4 Å Resolution," <i>J. Mol. Biol.</i> 288:965-974 (1999)	
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	35	Lei et al., "Nutritional Benefits of Phytase and Dietary Determinants of its Efficacy," <i>J. Appl. Anim. Res.</i> 17:97-112 (2000)	
	36	Lei et al., "Supplemental Microbial Phytase Improves Bioavailability of Dietary Zinc to Weanling Pigs," <i>J. Nutr.</i> 123:1117-1123 (1993)	
✓	37	Lei et al., "Supplementing Corn-Soybean Meal Diets with Microbial Phytase Linearly Improves Phytate Phosphorus Utilization by Weanling Pigs," <i>J. Anim. Sci.</i> 71:3359-3367 (1993)	

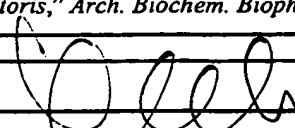
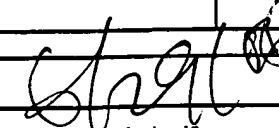
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	38	Mitchell et al., "The Phytase Subfamily of Histidine Acid Phosphatases: Isolation of Genes for Two Novel Phytases from the Fungi <i>Aspergillus terreus</i> and <i>Myceliophthora thermophila</i> ," <i>Microbiology</i> 143:245-252 (1997)	
	39	Mullaney et al., "Advances in Phytase Research," <i>Advances in Applied Microbiology</i> 47:157-199 (2000)	
	40	Mullaney et al., "Phytase Activity in <i>Aspergillus fumigatus</i> Isolates," <i>Biochem. Biophys. Res. Commun.</i> 275:759-763 (2000)	
	41	Mullaney et al., "Positive Identification of a Lambda gt11 Clone Containing a Region of Fungal Phytase Gene by Immunoprobe and Sequence Verification," <i>Appl. Microbiol. Biotechnol.</i> 35:611-614 (1991)	
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	43	Nielsen et al., "The Determinants of $\alpha$ -Amylase pH-Activity Profiles," <i>Protein Eng.</i> 14(7):505-512 (2001)	
	44	Ostanin et al., "Asp <sup>304</sup> of <i>Escherichia coli</i> Acid Phosphatase is Involved in Leaving Group Protonation," <i>J. Biol. Chem.</i> 268(28):20778-20784 (1993)	
	45	Ostanin et al., "Overexpression, Site-Directed Mutagenesis, and Mechanism of <i>Escherichia coli</i> Acid Phosphatase," <i>J. Biol. Chem.</i> 267(32):22830-22836 (1992)	
	46	Pasamontes et al., "Gene Cloning, Purification, and Characterization of a Heat-Stable Phytase from the Fungus <i>Aspergillus fumigatus</i> ," <i>Appl. Environ. Microbiol.</i> 63(5):1696-1700 (1997)	
	47	Rodriguez et al., "Expression of the <i>Aspergillus fumigatus</i> Phytase Gene in <i>Pichia pastoris</i> and Characterization of the Recombinant Enzyme," <i>Biochem. Biophys. Res. Commun.</i> 268:373-378 (2000)	
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	49	Tomschy et al., "Active Site Residue 297 of <i>Aspergillus niger</i> Phytase Critically Affects the Catalytic Properties," <i>FEBS Lett.</i> 472(2-3):169-172 (2000)		
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	52	Ullah et al., "Cyclohexanedione Modification of Arginine at the Active Site of <i>Aspergillus ficuum</i> Phytase," <i>Biochem. Biophys. Res. Commun.</i> 178(1):45-53 (1991)		
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	59	Wyss et al., "Biophysical Characterization of Fungal Phytases ( <i>myo</i> -Inositol Hexakisphosphate Phosphohydrolases): Molecular Size, Glycosylation Pattern, and Engineering of Proteolytic Resistance," <i>Appl. Environ. Microbiol.</i> 65(2):359-366 (1999)		
	60	Yi et al., "Sites of Phytase Activity in the Gastrointestinal Tract of Young Pigs," <i>Animal Feed Science Technology</i> 61:361-368 (1996)		
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